

In the Claims

1. (Twice Amended) A low k interlevel dielectric layer fabrication method comprising:

providing a substrate having integrated circuitry at least partially formed thereon;

[forming] chemical vapor depositing within a chamber an interlevel dielectric layer [comprising] consisting essentially of $(\text{CH}_3)_x\text{SiO}_y$ and having a dielectric constant no greater than 3.5 over said substrate; and

after forming the dielectric layer, exposing [it] said dielectric layer in the chamber to a plasma comprising oxygen without depositing more of said dielectric layer effective to reduce the dielectric constant to at least [15%] 10% below what it was prior to said exposing.

8. (Amended) The method of claim 1 wherein [the dielectric layer comprising carbon is formed by chemical vapor deposition in a chamber,] the exposing [occurring] occurs within the chamber without removing the substrate from the chamber between the forming and the exposing.

~~Cancel claim 17.~~

34. (Twice Amended) A low k interlevel dielectric layer fabrication method comprising:

providing a substrate having integrated circuitry at least partially formed thereon;

in a chamber, plasma enhanced chemical vapor depositing an interlevel dielectric layer comprising $(\text{CH}_3)_x\text{SiO}_y$ and having a dielectric constant no greater than 3.5 over said substrate at subatmospheric pressure; and

after forming the dielectric layer, exposing [it] said dielectric layer in the chamber to a plasma comprising oxygen at a subatmospheric pressure without depositing more of said dielectric layer effective to reduce the dielectric constant by at least 10% below what it was prior to said exposing, the exposing occurring without removing the substrate from the chamber between the depositing and the exposing, and pressure within the chamber being maintained at subatmospheric between the depositing and the exposing.

New Claims

Add new claim 65 as follows:

B4 65. The method of claim 1 wherein the chemical vapor depositing comprises plasma enhanced chemical vapor depositing, at least two precursors are fed to the chamber during the depositing, one of the precursors comprising oxygen, the exposing comprising substantially ceasing feeding another of the precursors while feeding the one, and maintaining plasma conditions within the chamber from the depositing through the exposing.